

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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June 1, 2011

03-Sac-50-R0.6/17.4

03-1C12U4

Project ID 03000000235

NH-P050(116)E

Addendum No. 5

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SACRAMENTO COUNTY AT VARIOUS LOCATIONS FROM STOCKTON BOULEVARD UNDERCROSSING TO NATOMA OVERHEAD.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Wednesday, June 29, 2011. The original bid opening date was previously postponed indefinitely under Addendum No. 4 dated December 3, 2010.

This addendum is being issued to set a new bid opening date as shown herein and revise the Project Plans, the Notice to Bidders and Special Provisions, the Bid book, the Federal Minimum Wages with Modification Number 21 dated 05/13/11, and the Information Handout.

Project Plan Sheets 1, 22, 43, 45, 52, 76, 88, 95, 101, 102, 103, 104, 105, 106, 107, 125, 138 and 215 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 6, 7, 12, 13, 17, 18, 24, 30, 31, 37, 42, 51, 67, 68, 69, 70, 71, 72, 73, 74, 75, 86, 87, 92, 93, 94, 100, 111, 115, 119, 123, 133, 134, 135, 136, 137, 140, 141, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213 and 214 are deleted.

In the Notice to Bidders and Special Provisions, in the "SPECIAL NOTICES," the following Special Notice is deleted:

"See Section 2, "Bidding," of these special provisions regarding a mandatory prebid meeting."

In the Notice to Bidders, the fourth paragraph is revised as follows:

"The department will receive sealed bids for CONSTRUCTION ON STATE HIGHWAY IN SACRAMENTO COUNTY AT VARIOUS LOCATIONS FROM STOCKTON BOULEVARD UNDERCROSSING TO HAZEL AVENUE OVERCROSSING"

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In the Notice to Bidders, the fifth paragraph is revised as follows:

"District-County-Route-Post Mile: 03-Sac-50-R0.6/15.8"

In the Notice to Bidders, the thirteenth paragraph is revised as follows:

"Complete all work, including plant establishment work, within 290 working days."

In the Notice to Bidders, the fourteenth paragraph is revised as follows:

"The estimated cost of the project is \$5,200,000."

In the Notice to Bidders, the fifteenth paragraph is deleted.

In the Special Provisions, Section 2-1.02, "MANDATORY PREBID MEETING," is deleted.

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES," the sixth paragraph is revised as follows:

"Complete the work, except plant establishment work, within 200 working days."

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES," the seventh paragraph is revised as follows:

"Complete the work, including plant establishment work, within 290 working days."

In the Special Provisions, Section 5-1.10, "PAYMENTS," in the list after the first paragraph, item "E Miscellaneous Bridge Metal" is deleted.

In the Special Provisions, Section 5-1.11, "SUPPLEMENTAL PROJECT INFORMATION," in the Supplemental Project Information table, "Foundation Recommendations for Natoma Overhead, Br. No. 24-0120R, dated April 16, 2009" is deleted.

In the Special Provisions, Section 8-3.01, "WELDING," subsection "WELDING QUALITY CONTROL," the following paragraph is added after the last paragraph.

**"PAYMENT**

Full compensation for conforming to the requirements of "Welding" shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor."

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In the Special Provisions, Section 9, "DESCRIPTION OF BRIDGE WORK," "Location B, Natoma Overhead (Widen) Br. No. 24-0120R" and the last paragraph are deleted.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the third paragraph is deleted.

In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," is revised as attached.

In the Special Provisions, Section 10-1.03, "CONSTRUCTION SITE MANAGEMENT," is revised as attached.

In the Special Provisions, Section 10-1.19, "MAINTAINING TRAFFIC," the second table after the fifth paragraph is deleted.

In the Special Provisions, Section 10-1.19, "MAINTAINING TRAFFIC," the thirteenth paragraph is deleted.

In the Special Provisions, Section 10-1.19, "MAINTAINING TRAFFIC," Chart No. 8, Chart No. 9, Chart No. 13, and Chart No. 17 are deleted.

In the Special Provisions, Section 10-1.19, "MAINTAINING TRAFFIC," in Chart No. 10, "EB Sac 50 PM 16.09 to PM 17.40" is deleted from the Closure Limits.

In the Special Provisions, Section 10-1.23, "TEMPORARY PAVEMENT DELINEATION," is revised as attached.

In the Special Provisions, Section 10-1.28, "TEMPORARY CRASH CUSHION (ABSORB 350)," the fourth and fifth paragraphs are revised as follows:

"The price quoted by the manufacturer for ABSORB-350, FOB Rio Vista, California is \$9,088.00, not including sales tax.  
The above price will be firm for orders placed on or before October 31, 2011, provided delivery is accepted within 30 days after the order is placed."

In the Special Provisions, Section 10-1.29, "REMOVE YELLOW TRAFFIC STRIPE (HAZARDOUS WASTE)," is deleted.

In the Special Provisions, Section 10-1.31, "EXISTING HIGHWAY FACILITIES," subsection "ABANDON CULVERT," is deleted.

In the Special Provisions, Section 10-1.31, "EXISTING HIGHWAY FACILITIES," subsection "REMOVE PAVEMENT MARKER," is deleted.

In the Special Provisions, Section 10-1.31, "EXISTING HIGHWAY FACILITIES," subsection "REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING," is deleted.

In the Special Provisions, Section 10-1.31, "EXISTING HIGHWAY FACILITIES," subsection "BRIDGE REMOVAL," in the second paragraph the heading "Location B:" and the first paragraph under the heading "Location B:" are deleted.



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In the Special Provisions, Section 10-1.34, "EARTHWORK," the eighth paragraph is deleted.

In the Special Provisions, Section 10-1.41, "RUBBERIZED HOT MIX ASPHALT (OPEN GRADED) GENERAL," is deleted.

In the Special Provisions, Section 10-1.44, "PILING," subsection "STEEL PIPE PILING," is deleted.

In the Special Provisions, Section 10-1.46, "CONCRETE STRUCTURES," subsection "SLIDING JOINTS," the first paragraph is revised as follows:

"Sliding joints consisting of hardboard lubricated with grease and covered with sheet metal shall conform to the following requirements:

- A. Hardboard shall conform to the requirements for tempered hardboard in Section 51-1.12D, "Sheet Packing, Preformed Pads and Board Fillers," of the Standard Specifications.
- B. Grease shall conform to the requirements of Society of Automotive Engineers AS 8660. A uniform film of grease shall be applied to the upper surface of the neoprene strip prior to placing the sheet metal.
- C. Sheet metal shall be commercial quality galvanized sheet steel. The sheet metal shall be smooth and free of kinks, bends, or burrs. Joints in the sheet metal shall be butt joints sealed with plastic duct sealing tape.
- D. Construction methods and procedures shall prevent grout or concrete seepage into the sliding joint assembly.
- E. The concrete surfaces on which the hardboard will be placed shall be floated to a level plane and finished with a steel trowel."

In the Special Provisions, Section 10-1.46, "CONCRETE STRUCTURES," subsection "SLIDING BEARINGS," is deleted.

In the Special Provisions, Section 10-1.46, "CONCRETE STRUCTURES," subsection "ELASTOMERIC BEARING PADS," is deleted.

In the Special Provisions, Section 10-1.50, "ASPHALTIC PLUG JOINT SEAL," is deleted.

In the Special Provisions, Section 10-1.61, "MISCELLANEOUS FACILITIES," is revised as follows:

"Concrete flared end section and steel flared end section shall conform to the provisions in Section 70, "Miscellaneous Facilities," of the Standard Specifications."

In the Special Provisions, Section 10-1.62, "SLOPE PROTECTION," is deleted.

In the Special Provisions, Section 10-1.65, "BRIDGE DECK DRAINAGE SYSTEM," is deleted.

In the Special Provisions, Section 10-1.68, "METAL BEAM GUARD RAILING," subsection "ALTERNATIVE FLARED TERMINAL SYSTEM," is deleted.



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In the Special Provisions, Section 10-1.70, "CONCRETE BARRIER," in the second paragraph, the last sentence is deleted.

In the Special Provisions, Section 10-2.01, "GENERAL," subsection "COST BREAK-DOWN," the "HIGHWAY PLANTING COST BREAK-DOWN" table and the "IRRIGATION SYSTEM COST BREAK-DOWN" table are revised as attached.

In the Special Provisions, Section 10-3.01, "DESCRIPTION," is revised as follows:

"Ramp metering system, modify ramp metering system, lighting, modify lighting, fiber optic system, communications system, and maintaining existing traffic management system elements during construction shall conform to the provisions in Section 86, "Electrical Systems," of the Standard Specifications and these special provisions."

Lighting equipment is included at the following structure:

A. 65TH Ave UC"

In the Special Provisions, Section 10-3.19, "VIDEO IMAGE VEHICLE DETECTION SYSTEM," is deleted.

In the Special Provisions, Section 10-3.21, "SIGN LIGHTING FIXTURES-INDUCTION," is deleted.

In the Special Provisions, Section 10-3.36, "PAYMENT," the second paragraph is deleted.

In the Special Provisions, Section 13, "RAILROAD RELATIONS AND INSURANCE," is revised as attached.

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In the Bid book, in the "Bid Item List," Items 3, 4, 7, 9, 14, 20, 23, 25, 28, 30, 31, 36, 37, 40, 41, 42, 45, 46, 47, 52, 57, 58, 59, 61, 64, 65, 66, 68, 69, 72, 73, 74, 75, 76, 80, 81, 82, 84, 85, 88, 91, 92, 93, 94, 96, 101, 103, 108, 109, 110, 113, 114, 115, 116, 117, 118, 119, 120, 121, 126, 127, 129, 130, 131 and 133 are revised, Items 146, 147, 148 and 149 are added and Items 17, 18, 19, 21, 26, 27, 32, 33, 35, 50, 67, 77, 78, 87, 97, 104, 105, 107, 111, 123, 125, 128, 132, 141 and 145 are deleted as attached.

To Bid book holders:

Replace the entire "Bid Item List" in the Bid book with the attached revised Bid Item List. The revised Bid Item List is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This addendum and its attachments are available for the Contractors' download on the Web site:

**[http://www.dot.ca.gov/hq/esc/oe/project\\_ads\\_addenda/03/03-1C12U4](http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/03/03-1C12U4)**

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,



REBECCA D. HARNAGEL  
Chief, Office of Plans, Specifications & Estimates  
Office Engineer  
Division of Engineering Services

Attachments

## 10-1.02 WATER POLLUTION CONTROL

### GENERAL

#### Summary

Discharges of storm water from the project must comply with NPDES General Permit for "Storm Water Discharges Associated with Construction and Land Disturbance Activities" (Order No. 2009-0009-DWQ, NPDES No. CAS000002) hereinafter called the "Permit." Manage work activities to reduce the discharge of pollutants to surface waters, groundwater, or municipal separate storm sewer systems including work items shown in the Bid Item List for:

1. Prepare Storm Water Pollution Prevention Plan. SWPPP preparation includes obtaining SWPPP approval, amending the SWPPP, preparing a CSMP and a SAP, and monitoring and inspecting WPC practices at the job site.
2. Storm Water Annual Report. Storm Water Annual Report preparation includes certifications, monitoring and inspection results, and obtaining Storm Water Annual Report acceptance.
3. Storm Water Sampling and Analysis Day. Storm Water Sampling and Analysis Day includes reporting of storm water quality per qualifying rain event. If specified for the risk level, the work includes preparation, collection, analysis, and reporting of storm water samples for turbidity, pH, and other constituents.
4. Rain Event Action Plan. If specified for the project risk level, REAP preparation includes preparing and submitting REAP forms and monitoring weather forecasts.

Do not start work until:

1. SWPPP is approved.
2. WDID is issued.
3. SWPPP review requirements have been fulfilled. If the RWQCB requires time for SWPPP review, allow 30 days for the RWQCB to review the SWPPP as specified under "Submittals" of these special provisions.

This project is Risk Level 2.

#### Definitions and Abbreviations

**active and inactive areas:** (1) Active areas have soil disturbing work activities occurring at least once within 14 days, and (2) Inactive areas are areas that have not been disturbed for at least 15 days.

**BMPs:** Best Management Practices are water pollution control practices.

**construction phase:** Construction phases are (1) Highway Construction including work activities for building roads and structures, (2) Plant Establishment including maintenance on vegetation installed for final stabilization, and (3) Suspension where work activities are suspended and areas are inactive.

**CSMP:** Construction Site Monitoring Program.

**NAL:** Numeric Action Level.

**NEL:** Numeric Effluent Limit.

**NPDES:** National Pollutant Discharge Elimination System.

**NOI:** Notice of Intent.

**normal working hours:** The hours you normally work on this project.

**Preparation Manual:** The Department's "Storm Water Pollution Prevention Plan and Water Pollution Control Program Preparation Manual."

**QSD:** Qualified SWPPP Developer.

**QSP:** Qualified SWPPP Practitioner.

**qualified rain event:** A qualified rain event is a storm that produces at least 0.5 inch of precipitation with a 48 hour or greater period between storms.

**REAP:** Rain Event Action Plan.

**RWQCB:** Regional Water Quality Control Board.

**SAP:** Sampling and Analysis Plan.

**SSC:** Suspended Sediment Concentration.

**SWRCB:** State Water Resources Control Board.

**SWPPP:** Storm Water Pollution Prevention Plan.

**WDID:** Waste Discharge Identification Number.

**WPC:** Water Pollution Control.

**WPC Manager:** Water Pollution Control Manager. The WPC Manager implements water pollution control work described in the SWPPP and oversees revisions and amendments to the SWPPP.



### **Submittals**

Within 20 days after contract approval, start the following process for SWPPP approval:

1. Submit 3 copies of the SWPPP and allow 20 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped.
2. Change and resubmit the SWPPP within 15 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete SWPPP is resubmitted.
3. When the Engineer approves the SWPPP, submit an electronic and 4 printed copies of the approved SWPPP.
4. If the RWQCB reviews the approved SWPPP, the Engineer submits one copy of the approved SWPPP to the RWQCB for their review and comment. RWQCBs requiring time to review SWPPPs include:
  - 4.1. Lahontan for projects in the Lake Tahoe Hydrologic Unit and the Mammoth Lakes Hydrologic Unit
5. If the Engineer requests changes to the SWPPP based on RWQCB comments, amend the SWPPP within 10 days.

Submit:

1. Storm water training records including training dates and subjects for employees and subcontractors. Include dates and subjects for ongoing training, including tailgate meetings.
2. Employee training records:
  - 2.1. Within 5 days of SWPPP approval for existing employees
  - 2.2. Within 5 days of training for new employees
  - 2.3. At least 5 days before subcontractors start work for subcontractor's employees

Prepare a Storm Water Annual Report for the reporting period from July 1st to June 30th. For the prior reporting period, submit the report no later than July 15th if construction occurs from July 1st through June 30th or within 15 days after contract acceptance if construction ends before June 30th.

Submit the Storm Water Annual Report as follows:

1. Submit 2 copies of the Storm Water Annual Report and allow 10 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped.
2. Change and resubmit the Storm Water Annual Report within 5 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete Storm Water Annual Report is resubmitted.
3. When the Engineer accepts the Storm Water Annual Report, insert the WPC Manager's signed certification and the Engineer's signed certification.

Submit one electronic copy and 2 printed copies of the accepted Storm Water Annual Report.

Submit as required:

1. NAL Exceedance Reports
2. NEL Exceedance Reports
3. Visual Monitoring Reports
4. Inspection Reports
5. BMP Status Report

At least 5 days before operating any construction support facility, submit:

1. A plan showing the location and quantity of WPC practices associated with the construction support facility
2. A copy of the NOI approved by the RWQCB and the SWPPP approved by the RWQCB if you will be operating a batch plant or a crushing plant under the General Industrial Permit

## **Quality Control and Assurance**

### **Training**

Provide storm water training for:

1. Project managers
2. Supervisory personnel
3. Employees involved with WPC work

Train all employees, including subcontractor's employees, in the following subjects:

1. WPC rules and regulations
2. Implementation and maintenance for:
  - 2.1. Temporary Soil Stabilization
  - 2.2. Temporary Sediment Control
  - 2.3. Tracking Control
  - 2.4. Wind Erosion Control
  - 2.5. Material pollution prevention and control
  - 2.6. Waste management
  - 2.7. Non-storm water management
  - 2.8. Identifying and handling hazardous substances
  - 2.9. Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Employees must receive initial WPC training before working on the job site.

Conduct weekly training meetings covering:

1. WPC BMP deficiencies and corrective actions
2. BMPs that are required for work activities during the week
3. Spill prevention and control
4. Material delivery, storage, use, and disposal
5. Waste management
6. Non-storm water management procedures

Training for personnel to collect water quality samples must include:

1. SAP review
2. Health and safety review
3. Sampling simulations

If you operate construction support facilities, protect storm water systems or receiving waters from the discharge of potential pollutants by using WPC practices.

Construction support facilities include:

1. Staging areas
2. Storage yards for equipment and materials
3. Mobile operations
4. Batch plants for PCC and HMA
5. Crushing plants for rock and aggregate
6. Other facilities installed for your convenience such as haul roads

If you operate a batch plant to manufacture PCC, HMA, or other material; or a crushing plant to produce rock or aggregate; obtain coverage under the General Industrial General Permit. You must be covered under the General Industrial Permit for batch plants and crushing plants located:

1. Outside of the job site
2. Within the job site that serve one or more contracts

Discharges from manufacturing facilities such as batch plants must comply with the general waste discharge requirements for Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, issued by the SWRCB for "Discharge of Stormwater Associated with Industrial Activities Excluding Construction Activities." For the General Industrial Permit, go to:

<http://www.waterboards.ca.gov/>

You may obtain copies of the Preparation Manual from the Publication Distribution Unit. The mailing address for the Publication Distribution Unit is:

State of California  
Department of Transportation  
Publication Distribution Unit  
1900 Royal Oaks Drive  
Sacramento, California 95815  
Telephone: (916) 445-3520

The Preparation Manual and other WPC references are available at the Department's "Construction Storm Water and Water Pollution Control" Web site. For the Web site, go to:

<http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm>

#### **Water Pollution Control Manager**

Assign one WPC Manager to implement the SWPPP. The WPC Manager must comply with the Permit qualifications for a QSP and a QSD. You may assign a different QSD to prepare the SWPPP.

The QSD must have the following qualifications:

1. Department approved storm water management training described in the Department's "Construction Storm Water and Water Pollution Control" web site
2. Registration or certification described in the Permit

The QSP must meet the qualifications of the QSD or have the following certifications:

1. Department approved storm water management training described in the Department's "Construction Storm Water and Water Pollution Control" web site
2. Certification described in the Permit

At the job site, the WPC Manager must:

1. Be responsible for WPC work
2. Be the primary contact for WPC work
3. Oversee the maintenance of WPC practices
4. Oversee and enforce hazardous waste management practices
5. Have the authority to mobilize crews to make immediate repairs to WPC practices
6. Ensure that all employees have current water pollution control training
7. Implement the approved SWPPP and amend the SWPPP when required



WPC Manager must oversee:

1. Inspections of WPC practices identified in the SWPPP
2. Inspections and reports for visual monitoring
3. Preparation and implementation of REAPs
4. Sampling and analysis
5. Preparation and submittal of:
  - 5.1. NAL exceedance reports
  - 5.2. NEL exceedance reports
  - 5.3. SWPPP annual certification
  - 5.4. Annual reports
  - 5.5. BMP status reports

## **STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**

### **General**

SWPPP work includes preparing a SWPPP including a CSMP, obtaining SWPPP approval, amending the SWPPP, inspecting and reporting on WPC practices at the job site. The SWPPP must comply with the Preparation Manual and the Permit. The SWPPP must be submitted in place of the water pollution control program under Section 7-1.01G, "Water Pollution," of the Standard Specifications.

You may request, or the Engineer may order, changes to the WPC work. Changes may include the addition of new WPC practices. Additional WPC work will be paid for as extra work under Section 4-1.03D, "Extra Work," of the Standard Specifications.

The SWPPP must include sections as specified for the project risk level as follows:

1. For risk level 1:
  - 1.1. Schedule
  - 1.2. CSMP
2. For risk level 2:
  - 2.1. Schedule
  - 2.2. CSMP
  - 2.3. Adherence to Effluent Standards for NALs
  - 2.4. REAP
3. For risk level 3:
  - 3.1. Schedule
  - 3.2. CSMP
  - 3.3. Adherence to Effluent Standards for NALs and NELs
  - 3.4. REAP

The SWPPP must include WPC practices for:

1. Storm water and non-stormwater from areas outside of the job site related to project work activities such as:
  - 1.1. Staging areas
  - 1.2. Storage yards
  - 1.3. Access roads
2. Activities or mobile operations related to contractor obtained NPDES permits
3. Construction support facilities

The SWPPP must include a copy of permits obtained by the Department such as Fish & Game permits, US Army Corps of Engineers permits, RWQCB 401 Certifications, and RWQCB Waste Discharge Requirements for Aerially Deposited Lead Reuse.

Amend the SWPPP annually and resubmit it by July 15th.

Amend the SWPPP if:

1. Changes in work activities could affect the discharge of pollutants
2. WPC practices are added by change order work
3. WPC practices are added at your discretion
4. Changes in the amount of disturbed soil are substantial
5. Objectives for reducing or eliminating pollutants in storm water discharges have not been achieved
6. There is a Permit violation

Whenever you amend the SWPPP, follow the same process specified for SWPPP approval.

Retain a printed copy of the approved SWPPP at the job site.

#### **SWPPP Schedule**

The SWPPP schedule must:

1. Describe when work activities will be performed that could cause the discharge of pollutants into storm water
2. Describe WPC practices associated with each construction phase
3. Identify soil stabilization and sediment control practices for disturbed soil areas

#### **Construction Site Monitoring Program (CSMP)**

##### **General**

The QSD must prepare a CSMP as part of the SWPPP. The CSMP must be developed before starting work and be revised to reflect current construction activities as necessary.

The CSMP must include sections for the project risk level as follows:

1. For risk level 1:
  - 1.1. Visual Monitoring
  - 1.2. SAP for Non-Visible Pollutants
2. For risk level 2:
  - 2.1. Visual Monitoring
  - 2.2. SAP for Non-Visible Pollutants
  - 2.3. SAP for sediment and turbidity
  - 2.4. SAP for pH
3. For risk level 3:
  - 3.1. Visual Monitoring
  - 3.2. SAP for Non-Visible Pollutants
  - 3.3. SAP for sediment and turbidity
  - 3.4. SAP for pH
  - 3.5. SAP for receiving waters
  - 3.6. SAP for temporary active treatment systems

### **Visual Monitoring**

The WPC Manager must oversee the performance of visual inspections for qualifying rain events.

For each qualifying rain event, perform visual inspections and record observations during normal working hours as follows:

1. Record the time, date, and rain gauge reading
2. Observe:
  - 2.1. Within 2 days before the storm:
    - 2.1.1. Drainage areas for spills, leaks, or uncontrolled pollutants
    - 2.1.2. Proper implementation of WPC practices
    - 2.1.3. Storm water storage areas for leaks and adequate freeboard
  - 2.2. Every 24 hours during the storm:
    - 2.2.1. WPC practices for effective operation
    - 2.2.2. WPC practices needing maintenance and repair
  - 2.3. Within 2 days after the storm event:
    - 2.3.1. Discharge locations
    - 2.3.2. WPC practices to evaluate the design, implementation, and effectiveness
    - 2.3.3. To identify where additional WPC practices may be needed

Perform non-stormwater discharge visual inspections as follows:

1. At least once during each of the following periods:
  - 1.1. January through March
  - 1.2. April through June
  - 1.3. July through September
  - 1.4. October through December
2. Observe flowing and contained storm water for the presence of floating and suspended materials, sheen on the surface, discoloration, turbidity, odors, and sources of observed pollutants
3. Observe the job site for the presence of authorized and unauthorized non-stormwater discharges and their sources

The WPC Manager must prepare visual inspection reports that include the following:

1. Name of personnel performing the inspection, inspection date, and date inspection report completed
2. Storm and weather conditions
3. Locations and observations
4. Corrective actions taken

Maintain visual inspections reports at the job site as part of the SWPPP.

### **Sampling and Analysis Plan (SAP)**

#### **General**

Include a SAP in the CSMP to monitor the effectiveness of WPC practices.

The SAP must comply with the Preparation Manual.

Assign trained personnel to collect water quality samples. Document their training in the SAP.



Describe the following water quality sampling procedures in the SAP:

1. Sampling equipment
2. Sample preparation
3. Collection
4. Field measurement methods
5. Analytical methods
6. Quality assurance and quality control
7. Sample preservation and labeling
8. Collection documentation
9. Sample shipping
10. Chain of custody
11. Data management and reporting
12. Precautions from the construction site health and safety plan
13. Laboratory selection and certifications

Whenever assigned field personnel take samples, comply with the equipment manufacturer's recommendation for collection, analysis methods, and equipment calibration.

Samples taken for laboratory analysis must follow water quality sampling procedures and be analyzed by a State-certified laboratory under 40 CFR Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants."

The SAP must identify the State-certified laboratory, sample containers, preservation requirements, holding times, and analysis method. For a list of State-certified laboratories, go to:

<http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx>

Include procedure for sample collection during precipitation.

Retain water quality sampling documentation and analytical results with the SWPPP at the job site.

Show pollutant sampling locations on SWPPP drawings.

If discharges or sampling locations change because of changed work activities or knowledge of site conditions, amend the SAP.

If the project is risk level 2 or risk level 3, include procedures for collecting and analyzing at least 3 samples for each day of each qualifying rain event. Describe the collection of effluent samples at all locations where the storm water is discharged off-site.

#### **Analytical Results and Evaluation**

Submit an electronic copy (in file format .xls, .txt, .csv, .dbs, or .mdb) and a printed copy of water quality analytical results, and quality assurance and quality control within 48 hours of field analysis sampling, and within 30 days for laboratory analysis. Also provide an evaluation of whether the downstream samples show levels of the tested parameter that are higher than the control sample.

Electronic water quality analysis results must have the following information:

1. Sample identification number
2. Contract number
3. Constituent
4. Reported value
5. Analytical method
6. Method detection limit
7. Reported limit

### **SAP for Non-Visible Pollutants**

The SAP must include a description of the sampling and analysis strategy for monitoring non-visible pollutants.

The SAP must identify potential non-visible pollutants present at the job site associated with any of the following:

1. Construction materials and waste
2. Existing contamination due to historical site usage
3. Application of soil amendments, including soil stabilization materials, with the potential to change pH or contribute toxic pollutants to storm water

SWPPP drawings must show the locations planned for storage and use of potential non-visible pollutants.

The SAP must include sampling procedures for the following conditions when observed during a storm water visual inspection. For each of the following, collect at least one sample for each qualifying storm event:

1. Materials or waste containing potential non-visible pollutants that are not stored under watertight conditions
2. Materials or waste containing potential non-visible pollutants that are stored under watertight conditions, but a breach, leakage, malfunction, or spill is observed; the leak or spill has not been cleaned up before precipitation; and material or waste could discharge non-visible pollutants to surface waters or drainage system
3. Chemical applications, including fertilizer, pesticide, herbicide, methyl methacrylate concrete sealant, or non-pigmented curing compound used during precipitation or within 24 hours preceding precipitation, and could discharge pollutants to surface waters or drainage system
4. Applied soil amendments, including soil stabilization materials that could change pH levels or contribute toxic pollutants to storm water runoff and discharge pollutants to surface waters or drainage system, unless available independent test data indicates acceptable concentrations of non-visible pollutants in the soil amendment
5. Storm water runoff from an area contaminated by historical usage of the site that could discharge pollutants to surface waters or drainage systems

The SAP must provide sampling procedures and schedule for:

1. Sample collection during the first 2 hours of each rain event that generate runoff
2. Sample collection during normal working hours.
3. Each non-visible pollutant source
4. Uncontaminated control sample

The SAP must identify locations for sampling downstream and control samples, and reasons for selecting those locations. Select control sample locations where the sample will not come in contact with materials, waste, or areas associated with potential non-visible pollutants or disturbed soil areas.

### **SAP for Sediment and Turbidity**

If the project is risk level 2 or risk level 3, sample and analyze for turbidity:

Parameter	Test Method	Detection Limit (Min)	Unit
Turbidity	Field test with calibrated portable instrument	1	NTU

If the project is risk level 3 and the turbidity NEL has been exceeded, sample and analyze for SSC:

Parameter	Test Method	Detection Limit (Min)	Unit
SSC	ASTM Method D3977-97	5	Mg/L

### **SAP for pH**

If the project is risk level 2 or risk level 3, sample and analyze for pH:

Parameter	Test Method	Detection Limit (Min)	Unit
pH	Field test with calibrated portable instrument	0.2	pH units

### **SAP for Receiving Waters**

If the project is risk level 3, describe procedures for obtaining samples from representative and accessible locations:

1. Upstream of the discharge point
2. Downstream of the discharge point

Show receiving water sampling locations on SWPPP drawings.

If there are several discharge points, describe procedures for obtaining samples from a single upstream and a single downstream location.

### **Rain Event Action Plan (REAP)**

REAP work includes preparing and submitting REAP forms and monitoring weather forecasts. The WPC Manager must submit a REAP to protect the job site at least 48 hours before a predicted rain event.

Prepare a REAP when the National Weather Service is predicting at least a 50 percent probability of precipitation within 72 hours.

For the REAP, use approved forms and include:

1. Site location
2. Risk level
3. Contact information including 24-hour emergency phone numbers for:
  - 3.1. WPC Manager
  - 3.2. Erosion and sediment control providers or subcontractors
  - 3.3. Storm water sampling providers or subcontractors
4. Storm Information
5. Construction phase information for:
  - 5.1. Highway Construction including active and inactive areas for work activities for building roads and structures
  - 5.2. Plant Establishment including maintenance on vegetation installed for final stabilization where areas are inactive
  - 5.3. Suspension where work activities are suspended and areas are inactive
6. Construction phase information including:
  - 6.1. Construction activities
  - 6.2. Subcontractors and trades on the job site
  - 6.3. Pre-storm activities including:
    - 6.3.1. Responsibilities of the WPC Manager
    - 6.3.2. Responsibilities of the crew and crew size
    - 6.3.3. Stabilization for active and inactive disturbed soil areas
    - 6.3.4. Stockpile management
    - 6.3.5. Corrective actions taken for deficiencies identified during pre-storm visual inspection



6.4. Activities to be performed during storm events including:

- 6.4.1. Responsibilities of the WPC Manager
- 6.4.2. Responsibilities of the crew and crew size
- 6.4.3. BMP maintenance and repair

6.5. Description of flood contingency measures

You must have the REAP onsite at least 24 hours before a predicted rain event. A printed copy of each REAP must be at the job site as part of the SWPPP.

Implement the REAP including mobilizing crews to complete activities no later than 24 hours before precipitation occurs.

## IMPLEMENTATION REQUIREMENTS

### SWPPP Implementation

Obtain, install, and maintain a rain gauge at the job site. Observe and record daily precipitation. Monitor the National Weather Service Forecast Office on a daily basis. For forecasts, go to:

<http://www.srh.noaa.gov/forecast>

Whenever you or the Engineer identifies a deficiency in the implementation of the approved SWPPP:

1. Correct the deficiency immediately, unless the Engineer agrees to a later date for making the correction
2. Correct the deficiency before precipitation occurs

If you fail to correct the deficiency by the agreed date or before the onset of precipitation, the Department may correct the deficiency and deduct the cost of correcting the deficiency from payment.

Continue SWPPP implementation during any temporary suspension of work activities.

Install WPC practices within 15 days or before predicted precipitation, whichever occurs first.

### Numeric Action Levels (NALs)

If the project is risk level 2 or risk level 3, then it is subject to NALs:

Parameter	Test Method	Detection Limit (Min)	Unit	Numeric Action Level
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test with calibrated portable instrument	1	NTU	250 NTU

### Numeric Effluent Limits (NELs)

If the project is risk level 3, then it is subject to NELs:

Parameter	Test Method	Detection Limit (Min)	Unit	Numeric Effluent Limit
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NEL = 6.0 Upper NEL = 9.0
Turbidity	Field test with calibrated portable instrument	1	NTU	500 NTU

The storm event daily average for storms up to the 5-year, 24-hour storm, must not exceed the NEL for turbidity. The daily average sampling results must not exceed the NEL for pH.

### **Storm Water Sampling and Analysis Day**

Storm Water Sampling and Analysis Day work includes preparation, collection, analysis, and reporting of storm water samples for turbidity, pH, and other constituents. If the project is risk level 2 or risk level 3, and there is a qualified rain event that produces runoff, comply with the project's SAP for preparation, collection, analysis, and reporting of storm water samples. Collect:

1. Samples for each non-visible pollutant source and a corresponding uncontaminated control sample
2. Samples for turbidity, pH, and other constituents as specified
3. At least 3 samples for each day of each qualifying rain event
4. Samples for all locations where the storm water is discharged off-site

Perform sample collection during:

1. First 2 hours of each qualified rain event that produces runoff
2. Normal working hours

If the project is risk level 3, obtain receiving water samples.

You are not required to physically collect samples during dangerous weather conditions such as flooding or electrical storms.

If downstream samples show increased levels, assess WPC practices, site conditions, and surrounding influences to determine the probable cause for the increase.

### **Inspection**

The WPC Manager must oversee inspections for WPC practices identified in the SWPPP:

1. Before a forecasted storm
2. After precipitation that causes site runoff
3. At 24-hour intervals during extended precipitation
4. On a predetermined schedule, a minimum of once a week

The WPC Manager must oversee daily inspections of:

1. Storage areas for hazardous materials and waste
2. Hazardous waste disposal and transporting activities
3. Hazardous material delivery and storage activities
4. WPC practices specified under "Construction Site Management" of these special provisions

The WPC Manager must use the Storm Water Site Inspection Report provided in the Preparation Manual.

The WPC Manager must prepare BMP status reports that include the following:

1. Location and quantity of installed WPC practices
2. Location and quantity of disturbed soil for the active or inactive areas

Within 24 hours of finishing the weekly inspection, the WPC Manager must submit:

1. Copy of the completed site inspection report
2. Copy of the BMP status report

## **REPORTING REQUIREMENTS**

### **Storm Water Annual Report**

Storm Water Annual Report work includes certifications, monitoring and inspection results, and obtaining Storm Water Annual Report acceptance. The WPC Manager must prepare a Storm Water Annual Report. The report must:

1. Use an approved report format
2. Include project information including description and location
3. Include storm water monitoring information including:
  - 3.1. Summary and evaluation of sampling and analysis results including laboratory reports
  - 3.2. Analytical methods, reporting units, detection limits for analytical parameters
  - 3.3. Summary of corrective actions
  - 3.4. Identification of corrective actions or compliance activities that were not implemented
  - 3.5. Summary of violations
  - 3.6. Names of individuals performing storm water inspections and sampling
  - 3.7. Logistical information for inspections and sampling including location, date, time, and precipitation
  - 3.8. Visual observations and sample collection records
4. Include documentation on training for:
  - 4.1. Individuals responsible for NPDES permit compliance
  - 4.2. Individuals responsible for BMP installation, inspection, maintenance, and repair
  - 4.3. Individuals responsible for preparing, revising, and amending the SWPPP

### **NAL Exceedance Report**

If the project is risk level 2 or risk level 3 and an effluent sample exceeds a NAL, notify the Engineer and submit a NAL Exceedance Report no later than 48 hours after the conclusion of the storm event. The report must:

1. Include the following field sampling results and inspections:
  - 1.1. Analytical methods, reporting units, and detection limits
  - 1.2. Date, location, time of sampling, visual observation and measurements
  - 1.3. Quantity of precipitation of the storm event
2. Description of BMPs and corrective actions taken to manage NAL exceedance

### **NEL Violation Report**

If the project is risk level 3 and an NEL is exceeded, notify the Engineer and submit a NEL Violation Report within 6 hours. The report must:

1. Include the following field sampling results and inspections:
  - 1.1. Analytical methods, reporting units, and detection limits
  - 1.2. Date, location, time of sampling, visual observations and measurements
  - 1.3. Quantity of precipitation of the storm event
2. Description of BMPs and corrective actions taken to manage NEL exceedance

If the project is risk level 2 or risk level 3, submit all sampling results to the Engineer no later than 48 hours after the conclusion of a storm event.



## PAYMENT

The contract lump sum price paid for prepare storm water pollution prevention plan includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing, obtaining approval of, and amending the SWPPP and CSMP, inspecting water pollution control practices, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

For projects with 60 working days or less, payments for SWPPP are made as follows:

1. After the Engineer approves the SWPPP, the Department includes up to 75 percent of the bid item price in the monthly progress estimate
2. After contract acceptance, the Department pays for the remaining percentage of the bid item price

For projects with more than 60 working days, payments for SWPPP are made as follows:

1. After the Engineer approves the SWPPP, the Department includes up to 50 percent of the bid item price in the monthly progress estimate
2. The Department pays 40 percent of the bid item price over the life of the contract
3. After contract acceptance, the Department pays for the remaining 10 percent of the bid item

If risk level 2 or 3, the Department pays \$500 for each Rain Event Action Plan submitted. The contract unit price paid for Rain Event Action Plan includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation and submittal of REAP forms, and monitoring weather forecasts as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The Department does not adjust payment for an increase or decrease in the quantity of rain event action plans submitted. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

The Department pays \$2,000 for each Storm Water Annual Report submitted. The contract unit price paid for Storm Water Annual Report includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation and submittal of Storm Water Annual Report as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The Department does not adjust payment for an increase or decrease in the quantity of storm water annual reports submitted. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

The work to complete the final Storm Water Annual Report contract item is excluded from Section 7-1.17, "Acceptance of Contract," of the Standard Specifications.

If risk level 2 or 3, the contract unit price paid for storm water sampling and analysis day includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparation, collection, analysis, and reporting of storm water samples per qualifying rain event as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The Department does not adjust payment for an increase or decrease in the quantity of storm water sampling and analysis day. Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications does not apply.

You may request or the Engineer may order laboratory analysis of storm water samples. Laboratory analysis of storm water samples will be paid for as extra work under Section 4-1.03D, "Extra Work," of the Standard Specifications.

The Department does not pay for the preparation, collection, laboratory analysis, and reporting of storm water samples for non-visible pollutants if WPC practices are not implemented before precipitation or if a failure of a WPC practice is not corrected before precipitation.

The Department does not pay for implementation of WPC practices in areas outside the highway right-of-way not specifically provided for in the plans or in the special provisions.

The Department does not pay for WPC practices installed at your construction support facilities.

WPC practices for which there are separate bid items of work are measured and paid for as those bid items of work.

For each failure to submit a completed Storm Water Annual Report, the Department withholds \$10,000. This withhold is in addition to other withholds under Section 9-1.07E(3) "Performance Failure Withholds," of the Standard Specifications.

Each failure to comply with any part of these special provisions and each failure to implement water pollution control practices are considered separate performance failures.

## 10-1.03 CONSTRUCTION SITE MANAGEMENT

### GENERAL

#### Summary

This work includes controlling potential sources of water pollution before they come in contact with storm water systems or watercourses.

Control material pollution and manage waste and non-stormwater at the job site by implementing effective handling, storage, use, and disposal practices.

For information on documents specified in these special provisions, refer to the Department's Preparation Manual, Dewatering Guide, and BMP Manual.

Preparation Manual, Dewatering Guide, and BMP Manual are available from the Department's Construction Storm Water and Water Pollution Control web site at:

<http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm>

#### Definitions and Abbreviations

**active and inactive areas:** (1) Active areas have soil disturbing work activities occurring at least once within 14 days, and (2) Inactive areas are areas that have not been disturbed for at least 15 days.

**BMP Manual:** The Department's Construction Site Best Management Practices (BMP) Manual.

**CDPH:** California Department of Public Health

**Dewatering Guide:** The Department's Field Guide to Construction Site Dewatering.

**ELAP:** Environmental Laboratory Accreditation Program

**minor spills:** Small quantities of oil, gasoline, paint, or other material that are small enough to be controlled by a first responder upon discovery of the spill.

**MSDS:** Material Safety Data Sheet

**Preparation Manual:** The Department's Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual.

**semi-significant spills:** Spills that can be controlled by a first responder with help from other personnel.

**significant or hazardous spills:** Spills that cannot be controlled by construction personnel.

**WPC:** Water Pollution Control

**WPC Manager:** Water Pollution Control Manager as defined under "Water Pollution Control" of these special provisions.

#### Submittals

Submit the following:

1. MSDS at least 5 days before material is used or stored
2. Monthly inventory records for material used or stored
3. Copy of written approval to discharge into a sanitary sewer system at least 5 days before beginning discharge activities

#### Quality Control and Assurance

Not Used

#### MATERIALS

Not Used

### CONSTRUCTION

#### Spill Prevention and Control

Implement spill and leak prevention procedures for chemicals and hazardous substances stored at the job site. If you spill or leak chemicals or hazardous substances at the job site, you are responsible for all associated cleanup costs and related liability.

As soon as it is safe, contain and clean up spills of petroleum products, sanitary and septic waste substances listed under CFR Title 40, Parts 110, 117, and 302.



### **Minor Spills**

Clean up minor spills using the following procedures:

1. Contain the spread of the spill
2. Recover the spilled material by absorption
3. Clean the contaminated area
4. Dispose of the contaminated material promptly and properly

### **Semi-significant Spills**

Clean up semi-significant spills immediately by the following procedures:

1. Contain the spread of the spill
2. Recover the spilled material using absorption whenever a spill occurs on a paved surface or an impermeable surface
3. Contain the spill with an earthen dike and dig up the contaminated soil for disposal whenever a spill occurs on soil
4. If the spill occurs during precipitation, cover the spill with plastic or other material to prevent contaminated runoff
5. Dispose of the contaminated material promptly and properly

### **Significant or Hazardous Spills**

Immediately notify qualified personnel of significant or hazardous spills. Do not let construction personnel attempt to clean up the spill until qualified staff have arrived. Do the following:

1. Notify the Engineer and follow up with a written report
2. Obtain the services of a spills contractor or hazardous material team immediately
3. Notify the local emergency response team by dialing 911 and county officials at the emergency phone numbers kept at the job site
4. Notify the Governor's Office of Emergency Services Warning Center at (805) 852-7550
5. Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under CFR Title 40, Parts 110, 119, and 302
6. Notify other agencies as appropriate, including:
  - 6.1. Fire Department
  - 6.2. Public Works Department
  - 6.3. Coast Guard
  - 6.4. Highway Patrol
  - 6.5. City Police or County Sheriff Department
  - 6.6. Department of Toxic Substances
  - 6.7. California Division of Oil and Gas
  - 6.8. Cal OSHA
  - 6.9. Regional Water Resources Control Board

Report minor, semi-significant, and significant spills to the WPC Manager. The WPC Manager must notify the Engineer immediately. The WPC Manager must oversee and enforce proper spill prevention and control measures.

Prevent spills from entering storm water runoff before and during cleanup. Do not bury spills or wash spills with water.

Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored.

### **Material Management**

#### **General**

Material must be delivered, used, and stored for this job in a way that minimizes or eliminates discharge of material into the air, storm drain systems, and watercourses.

Implement the practices described under "Material Management" of these special provisions while taking delivery of, using, or storing any of the following materials:



1. Hazardous chemicals including acids, lime, glues, adhesives, paints, solvents, and curing compounds
2. Soil stabilizers and binders
3. Fertilizers
4. Detergents
5. Plaster
6. Petroleum materials including fuel, oil, and grease
7. Asphalt components and concrete components
8. Pesticides and herbicides

Employees trained in emergency spill cleanup procedures must be present during the unloading of hazardous materials or chemicals.

If practicable, use less hazardous materials.

### **Material Storage**

Use the following material storage procedures:

1. Store liquids, petroleum materials, and substances listed in CFR Title 40, Parts 110, 117, and 302 as specified by the Department, and place them in secondary containment facilities.
2. Secondary containment facilities must be impervious to the materials stored there for a minimum contact time of 72 hours.
3. Cover secondary containment facilities during non-working days and when precipitation is predicted. Secondary containment facilities must be adequately ventilated.
4. Keep secondary containment facility free of accumulated rainwater or spills. After precipitation, or in the event of spills or leaks, collect accumulated liquid and place into drums within 24 hours. Handle these liquids as hazardous waste under "Hazardous Waste" of these special provisions unless testing determines them to be nonhazardous.
5. Do not store incompatible materials, such as chlorine and ammonia, in the same secondary containment facility.
6. Store materials in the original containers with the original material labels maintained in legible condition. Replace damaged or illegible labels immediately.
7. Secondary containment facilities must have the capacity to contain precipitation from a 24-hour-long, 25-year storm, and 10 percent of the aggregate volume of all containers, or entire volume of the largest container within the facility, whichever is greater.
8. Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during non-working days and while precipitation is predicted.
9. Provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well organized, and equipped with cleanup supplies appropriate for the materials being stored.
10. Repair or replace perimeter controls, containment structures, covers, and liners as necessary. Inspect storage areas before and after precipitation, and at least weekly during other times.

### **Stockpile Management**

Use the following stockpile management procedures:

1. Reduce or eliminate potential water pollution from stockpiled material including soil, paving material, and pressure treated wood.
2. Locate stockpiles:
  - 2.1. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, and inlets unless approved
  - 2.2. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, and inlets unless approved

Install WPC practices within 15 days or before predicted precipitation, whichever occurs first.  
Active and inactive soil stockpiles must be:

1. Covered with soil stabilization measures, plastic sheeting, or geosynthetic fabric
2. Surrounded with a linear sediment barrier

Portland cement concrete rubble, AC, HMA, AC and HMA rubble, aggregate base or aggregate sub-base stockpiles must be:

1. Covered with plastic sheeting, or geosynthetic fabric
2. Surrounded with a linear sediment barrier

Pressure treated wood stockpiles must be:

1. Placed on pallets
2. Covered with impermeable material

Cold mix asphalt concrete stockpiles must be:

1. Placed on impervious surface
2. Covered with impermeable material
3. Protected from run-on and runoff

Control wind erosion year round under Section 14-9.02, "Dust Control" of the Standard Specifications.

Repair or replace linear sediment barriers and covers as needed to keep them functioning properly. If sediment accumulates to 1/3 of the linear sediment barrier height, remove the sediment.

## **Waste Management**

### **Solid Waste**

Do not allow litter or debris to accumulate anywhere at the job site, including storm drain grates, trash racks, and ditch lines. Pick up and remove trash and debris from the job site at least once a week. The WPC Manager must monitor solid waste storage and disposal procedures at the job site.

If practicable, recycle nonhazardous job site waste and excess material. If recycling is not practicable, disposal must comply with Section 7-1.13, "Disposal of Material Outside the Highway Right of Way" of the Standard Specifications.

Furnish enough closed-lid dumpsters of sufficient size to contain any solid waste generated by work activities. When the refuse reaches the fill line, empty the dumpsters. Dumpsters must be watertight. Do not wash out dumpsters at the job site. Furnish additional containers and pick up dumpsters more frequent during the demolition phase of construction.

Solid waste includes:

1. Brick
2. Mortar
3. Timber
4. Metal scraps
5. Sawdust
6. Pipe
7. Electrical cuttings
8. Non-hazardous equipment parts
9. Styrofoam and other packaging materials
10. Vegetative material and plant containers from highway planting
11. Litter and smoking material, including litter generated randomly by the public
12. Other trash and debris

Furnish and use trash receptacles at the job site yard, field trailers, and locations where workers gather for lunch and breaks.



### **Hazardous Waste**

Use hazardous waste management practices if waste is generated at the job site from the following substances:

1. Petroleum products
2. Asphalt products
3. Concrete curing compound
4. Pesticides
5. Acids
6. Paints
7. Stains
8. Solvents
9. Wood preservatives and treated posts
10. Roofing tar
11. Road flares
12. Lime
13. Glues and adhesives
14. Materials classified as hazardous by California Code of Regulations, Title 22, Division 4.5; or listed in CFR Title 40, Parts 110, 117, 261, or 302

The WPC Manager must oversee and enforce hazardous waste management practices. Minimize the production of hazardous materials and hazardous waste at the job site. If damaged, repair or replace perimeter controls, containment structures, and covers.

If hazardous material levels are unknown, use a laboratory certified by ELAP under CDPH to sample and test waste to determine safe methods for storage and disposal.

Separate potentially hazardous waste from nonhazardous waste at the job site. Hazardous waste must be handled, stored, and disposed of under California Code of Regulations, Title 22, Division 4.5, Section 66262.34; and in CFR Title 49, Parts 261, 262, and 263.

Store hazardous waste in sealed containers constructed and labeled with the contents and date accumulated under California Code of Regulations, Title 22, Division 4.5; and in CFR Title 49, Parts 172, 173, 178, and 179. Keep hazardous waste containers in temporary containment facilities under "Material Storage" of these special provisions.

Furnish containers with adequate storage volume at convenient locations for hazardous waste collection. Do not overfill hazardous waste containers. Do not mix hazardous waste. Do not allow potentially hazardous waste to accumulate on the ground. Store containers of dry waste that are not watertight on pallets. Store hazardous waste away from storm drains, watercourses, moving vehicles, and equipment.

Clean water based or oil based paint from brushes or equipment within a contained area and in a way that does not contaminate soil, watercourses, and storm drain systems. Handle and dispose of the following as hazardous waste: paints, thinners, solvents, residues, and sludges that cannot be recycled or reused. When thoroughly dry, dispose of the following as solid waste: dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths.

Dispose of hazardous waste within 90 days of being generated. Use a licensed hazardous waste transporter to take hazardous waste to a Class I Disposal Site. Submit a copy of uniform hazardous waste manifest forms within 24 hours of transporting hazardous waste.

The WPC Manager must inspect the following daily:

1. Storage areas for hazardous materials and waste
2. Hazardous waste disposal and transporting activities
3. Hazardous material delivery and storage activities

### **Contaminated Soil**

Identify contaminated soil from spills or leaks by noticing discoloration, odors, or differences in soil properties. Soil with evidence of contamination must be sampled and tested by a laboratory certified by ELAP.

If levels of contamination are found to be hazardous, handle and dispose of the soil as hazardous waste.

Prevent the flow of water, including ground water, from mixing with contaminated soil by using one or a combination of the following measures:



1. Berms
2. Cofferdams
3. Grout curtains
4. Freeze walls
5. Concrete seal course

If water mixes with contaminated soil and becomes contaminated, sample and test the water using a laboratory certified by ELAP. If levels of contamination are found to be hazardous, handle and dispose of the water as hazardous waste.

#### **Concrete Waste**

Use practices that will prevent the discharge of portland cement concrete, AC, or HMA waste into storm drain systems or watercourses.

Collect and dispose of portland cement concrete, AC, or HMA waste at locations where:

1. Concrete material, including grout, is used
2. Concrete dust and debris result from demolition
3. Sawcutting, coring, grinding, grooving, or hydro-concrete demolition of portland cement concrete, AC, or HMA creates a residue or slurry
4. Concrete truck or other concrete-coated equipment is cleaned at the job site

#### **Sanitary and Septic Waste**

Do not bury or discharge wastewater from sanitary or septic systems within Department right-of-way. The WPC Manager must inspect sanitary or septic waste storage and monitor disposal procedures at least weekly. Sanitary facilities that discharge to the sanitary sewer system must be properly connected and free from leaks. Place sanitary facilities at least 50 feet away from storm drains, watercourses, and flow lines.

Obtain written approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system, and submit a copy to the Engineer. Comply with local health agency provisions while using an on-site disposal system.

#### **Liquid Waste**

Use practices that will prevent job site liquid waste from entering storm drain systems or watercourses. Liquid waste includes the following:

1. Drilling slurries or fluids
2. Grease-free or oil-free wastewater or rinse water
3. Dredgings, including liquid waste from drainage system cleaning
4. Liquid waste running off a surface including wash or rinse water
5. Other non-stormwater liquids not covered by separate permits

Hold liquid waste in structurally sound, leak proof containers such as:

1. Roll-off bins
2. Portable tanks

Liquid waste containers must be of sufficient quantity and volume to prevent overflow, spills and leaks.

Store containers:

1. At least 50 feet from moving vehicles and equipment
2. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
3. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

Remove and dispose of deposited solids from sediment traps under "Solid Waste" of these special provisions unless the Engineer approves another method.

Liquid waste may require testing to determine hazardous material content before disposal.

Drilling fluids and residue must be disposed of outside the highway right-of-way.

If an approved location is available within the job site, fluids and residue exempt under California Code of Regulations, Title 23, Section 2511(g) may be dried by evaporation in a leak proof container. Dispose of remaining solid waste under "Solid Waste" of these special provisions.

### **Non-Storm Water Management**

#### **Water Control and Conservation**

Manage water used for work activities to prevent erosion or discharge of pollutants into storm drain systems or watercourses. Obtain approval before washing anything at the job site with water that could discharge into a storm drain system or watercourse. Report discharges immediately.

If water is used at the job site, implement water conservation practices. Inspect irrigation areas. Adjust watering schedules to prevent erosion, excess watering, or runoff. Shut off water source to broken lines, sprinklers, or valves, and repair breaks within 24 hours. If possible, reuse water from waterline flushing for landscape irrigation. Sweep and vacuum paved areas; do not wash them with water.

Direct job site water runoff, including water from water line repair, to areas where it can infiltrate into the ground and not enter storm drain systems or watercourses. Do not allow spilled water to escape water truck filling areas. If possible, direct water from off-site sources around the job site. Minimize the contact of off-site water with job site water.

#### **Illegal Connection and Discharge Detection and Reporting**

Inspect the job site and the site perimeter before starting work for evidence of illegal connections, discharges, or dumping. After starting work, inspect the job site and perimeter on a daily schedule.

Whenever illegal connections, discharges, or dumping are discovered, notify the Engineer immediately. Take no further action unless ordered by the Engineer. Assume unlabeled or unidentifiable material is hazardous.

Look for the following evidence of illegal connections, discharges, or dumping:

1. Debris or trash piles
2. Staining or discoloration on pavement or soils
3. Pungent odors coming from drainage systems
4. Discoloration or oily sheen on water
5. Stains or residue in ditches, channels or drain boxes
6. Abnormal water flow during dry weather
7. Excessive sediment deposits
8. Nonstandard drainage junction structures
9. Broken concrete or other disturbances near junction structures

#### **Vehicle and Equipment Cleaning**

Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. Notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Contain and recycle or dispose of resulting waste under "Liquid Waste" or "Hazardous Waste" of these special provisions, whichever is applicable. Do not use diesel to clean vehicles or equipment, and minimize the use of solvents.

Clean or wash vehicles and equipment in a structure equipped with disposal facilities. If using a structure is not possible, clean or wash vehicles and equipment in an outside area. The outside area must be:

1. Paved with AC, HMA, or concrete paving
2. Surrounded by a containment berm
3. Equipped with a sump to collect and dispose of wash water
4. If within the floodplain, located at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
5. If outside the floodplain, located at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved



When washing vehicles or equipment with water, use as little water as possible. Hoses must be equipped with a positive shutoff valve.

Discharge liquid from wash racks to a recycle system or to another approved system. Remove liquids and sediment as necessary.

The WPC Manager must inspect vehicle and equipment cleaning facilities:

1. Daily if vehicle and equipment cleaning occurs daily
2. Weekly if vehicle and equipment cleaning does not occur daily

#### **Vehicle and Equipment Fueling and Maintenance**

If practicable, perform maintenance on vehicles and equipment off the job site.

If fueling or maintenance must be done at the job site, designate a site, or sites, and obtain approval before using. Minimize mobile fueling or maintenance.

If vehicle and equipment fueling and maintenance must be done at the job site, areas for the following activities must be:

1. On level ground
2. Protected from storm water run-on
3. If within the floodplain, located at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
4. If outside the floodplain, located at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

Use containment berms or dikes around the fueling and maintenance area. Keep adequate quantities of absorbent spill cleanup material and spill kits in the fueling and maintenance area and on fueling trucks. Dispose of spill cleanup material and kits immediately after use. Use drip pans or absorbent pads during fueling or maintenance.

Fueling or maintenance activities must not be left unattended. Fueling nozzles must be equipped with an automatic shutoff control. Vapor recovery fueling nozzles must be used where required by the Air Quality Management District. When not in use, nozzles must be secured upright. Do not top-off fuel tanks.

Recycle or properly dispose of used batteries and tires.

The WPC Manager must inspect vehicle and equipment maintenance and fueling areas:

1. Daily when vehicle and equipment maintenance and fueling occurs daily
2. Weekly when vehicle and equipment maintenance and fueling does not occur daily

The WPC Manager must inspect vehicles and equipment at the job site for leaks and spills on a daily schedule. Operators must inspect vehicles and equipment each day of use.

If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

#### **Material and Equipment Used Over Water**

Place drip pans and absorbent pads under vehicles or equipment used over water. Keep an adequate supply of spill cleanup material with the vehicle or equipment. If the vehicle or equipment will be idle for more than one hour, place drip pans or plastic sheeting under the vehicle or equipment on docks, barges, or other surfaces over water.

Furnish watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools. Secure material to prevent spills or discharge into water due to wind.

#### **Structure Removal Over or Adjacent to Water**

Do not allow demolished material to enter storm water systems or watercourses. Use approved covers and platforms to collect debris. Use attachments on equipment to catch debris on small demolition activities. Empty debris catching devices daily and handle debris under "Waste Management" of these special provisions.

The WPC Manager must inspect demolition sites within 50 feet of storm water systems or watercourses daily.



### **Paving, Sealing, Sawcutting, Grooving, and Grinding Activities**

Prevent the following materials from entering storm drain systems or water courses:

1. Cementitious material
2. Asphaltic material
3. Aggregate or screenings
4. Grinding grooving, or sawcutting residue
5. Pavement chunks
6. Shoulder backing
7. Methacrylate

Cover drainage inlets and use linear sediment barriers to protect downhill watercourses until paving, sealing, sawcutting, grooving, or grinding activities are completed and excess material has been removed. Cover drainage inlets and manholes during the application of seal coat, tack coat, slurry seal, or fog seal.

If precipitation is predicted, limit paving, sawcutting, and grinding to places where runoff can be captured.

Do not start seal coat, tack coat, slurry seal, or fog seal activities if precipitation is predicted during the application or curing period. Do not excavate material from existing roadways during precipitation.

Use a vacuum to remove slurry immediately after slurry is produced. Do not allow slurry to run onto lanes open to traffic or off the pavement.

Collect residue from portland cement concrete grinding and grooving activities with a vacuum attachment on the grinding machine. Do not leave any residue on the pavement or allow the residue to flow across the pavement.

If approved, material excavated from existing roadways may be stockpiled under "Stockpile Management" of these special provisions.

Do not coat asphalt trucks and equipment with substances that contain soap, foaming agents, or toxic chemicals.

When paving equipment is not in use, park over drip pans or plastic sheeting with absorbent material to catch drips.

### **Thermoplastic Striping and Pavement Markers**

Thermoplastic striping and preheating equipment shutoff valves must work properly at all times. Do not preheat, transfer, or load thermoplastic within 50 feet of drainage inlets or watercourses. Do not fill a preheating container above a level that is 6 inches below the top. Truck beds must be cleaned daily of scraps or melted thermoplastic.

Do not unload, transfer, or load bituminous material for pavement markers within 50 feet of drainage inlets or watercourses. Release all pressure from a melting tank before removing the lid to fill or service. Do not fill a melting tank above a level that is 6 inches below the top.

Collect bituminous material from the roadway after marker removal.

### **Pile Driving**

Keep spill kits and cleanup material at pile driving locations. Pile driving equipment must be parked over drip pans, absorbent pads, or plastic sheeting with absorbent material. If precipitation is predicted, protect pile driving equipment by parking on plywood and covering with plastic.

Store pile driving equipment when not in use. Stored pile driving equipment must be:

1. Kept on level ground
2. Protected from storm water run-on
3. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
4. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

If practicable, use vegetable oil instead of hydraulic fluid.

The WPC Manager must inspect the pile driving area for leaks and spills:

1. Daily when pile driving occurs daily
2. Weekly when pile driving does not occur daily

### **Concrete Curing**

Do not overspray chemical curing compound. Minimize the drift by spraying as close to the concrete as possible. Cover drainage inlets before applying the curing compound.

Minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture while curing concrete.

### **Concrete Finishing**

Collect and dispose of water and solid waste from high-pressure water blasting. Cover drainage inlets within 50 feet before sandblasting. Minimize drift of dust and blast material by keeping the nozzle close to the surface of the concrete. The blast residue may contain hazardous material.

Inspect concrete finishing containment structures for damage before each day of use and before predicted precipitation. Remove liquid and solid waste from containment structures after each work shift.

### **Sweeping**

Sweeping must be done using hand or mechanical methods such as vacuuming.

Monitor paved areas and roadways within the job site for sediment and debris generating activities such as:

1. Clearing and grubbing
2. Earthwork
3. Trenching
4. Roadway structural section work
5. Vehicles entering and leaving the job site
6. Soil disturbing work
7. Work that causes offsite tracking of material

If sediment or debris is observed, perform sweeping:

1. Within:
  - 1.1. 8 hours of predicted rain
  - 1.2. 24 hours unless the Engineer approves a longer period
2. On paved roads at job site entrances and exit locations
3. On paved areas within the job site that flow to storm drains or receiving waters

You may stockpile collected material at the job site. Remove collected material including sediment from paved shoulders, drain inlets, curbs and dikes, and other drainage areas. If stockpiled, dispose of collected material at least once per week.

You may dispose of sediment within the job site that you collected during sweeping activities. Protect disposal areas against erosion.

Remove and dispose of trash collected during sweeping under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way" of the Standard Specifications.

### **Dewatering**

Dewatering consists of discharging accumulated storm water, ground water, or surface water from excavations or temporary containment facilities.

If dewatering and discharging activities are specified under a work item such as "Temporary Active Treatment System" or "Dewatering and Discharge," perform dewatering work as specified in the section involved.

If dewatering and discharging activities are not specified under a work item and you will be performing dewatering activities, you must:



1. Submit a Dewatering and Discharge Plan under Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications and "Water Pollution Control" of these special provisions at least 10 days before starting dewatering activities. The Dewatering and Discharge Plan must include:
  - 1.1. Title sheet and table of contents
  - 1.2. Description of dewatering and discharge activities detailing locations, quantity of water, equipment, and discharge points
  - 1.3. Estimated schedule for dewatering and discharge (start and end dates, intermittent or continuous)
  - 1.4. Discharge alternatives such as dust control or percolation
  - 1.5. Visual monitoring procedures with inspection log
2. Conduct dewatering activities under the Department's "Field Guide for Construction Dewatering."
3. Ensure that any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials.
4. Discharge the water within the project limits. Dispose of the water in the same way as specified for material in Section 7-1.13 "Disposal of Material Outside the Highway Right of Way" of the Standard Specification if it cannot be discharged within project limits due to site constraints.
5. Do not discharge storm water or non-stormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface. Notify the Engineer immediately upon discovering any such condition.

The WPC manager must inspect dewatering activities:

1. Daily when dewatering work occurs daily
2. Weekly when dewatering work does not occur daily

#### **PAYMENT**

The contract lump sum price paid for construction site management includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in spill prevention and control, material management, waste management, non-stormwater management, and dewatering and identifying, sampling, testing, handling, and disposing of hazardous waste resulting from your activities, as specified in the Standard Specifications and these special provisions, and as ordered by the Engineer.



### **10-1.23 TEMPORARY PAVEMENT DELINEATION**

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as reducing the minimum standards specified in the California MUTCD or as relieving the Contractor from the responsibilities specified in Section 7-1.09, "Public Safety," of the Standard Specifications.

#### **GENERAL**

When the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place before opening the traveled way to public traffic. Laneline or centerline pavement delineation shall be provided for traveled ways open to public traffic. On multilane roadways (freeways and expressways), edgeline delineation shall be provided for traveled ways open to public traffic.

Work necessary, including required lines or markers, to establish the alignment of temporary pavement delineation shall be performed by the Contractor. Surfaces to receive application of paint or removable traffic tape temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation, or as determined by the Engineer.

Temporary pavement markers and removable traffic tape that conflicts with a new traffic pattern or that is applied to the final layer of surfacing or existing pavement to remain in place shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

Temporary pavement delineation shall be used on or adjacent to lanes open to public traffic for a maximum of 14 days. Before the end of the 14 days, the permanent pavement delineation shall be placed. If the permanent pavement delineation is not placed within the 14 days, additional temporary pavement delineation shall be provided by the Contractor at no additional cost to the Department. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent pavement delineation for the area, as determined by the Engineer.

Painted traffic stripe used for temporary delineation shall conform to Section 84-3, "Painted Traffic Stripes and Pavement Markings," of the Standard Specifications, except for payment. The number of coats shall be, at the option of the Contractor, either one or 2 coats. The quantity of painted traffic stripe used for temporary delineation will not be included in the quantities of paint traffic stripe to be paid for.

#### **TEMPORARY LANELINE DELINEATION**

When lanelines are obliterated, the minimum laneline delineation to be provided shall be temporary pavement markers placed at longitudinal intervals of not more than 24 feet. The temporary pavement markers shall be the same color as the laneline the markers replace. Temporary pavement markers shall be, at the option of the Contractor, one of the temporary pavement markers listed for short term day/night use (14 days or less) or long term day/night use (6 months or less) in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. Temporary pavement markers shall be placed in conformance with the manufacturer's instructions and shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place pavement markers in areas where removal of the markers will be required.

Temporary laneline delineation consisting entirely of temporary pavement markers shall be placed on longitudinal intervals of not more than 24 feet.

Full compensation for furnishing, placing, maintaining, and removing temporary pavement markers used for temporary laneline and centerline delineation and for providing equivalent patterns of permanent traffic lines for these areas when required shall be considered as included in the contract prices paid for the items of work that obliterated the laneline and centerline pavement delineation and no separate payment will be made therefor.

Full compensation for furnishing, placing, and maintaining temporary painted laneline and centerline pavement delineation shall be considered as included in the contract prices paid for the items of work that obliterated the laneline and centerline pavement delineation and no separate payment will be made therefor.

#### **TEMPORARY EDGELINE DELINEATION**

When edgelines are obliterated on multilane roadways (freeways and expressways), the edgeline delineation to be provided for that area adjacent to lanes open to public traffic shall consist of, at the option of the Contractor, either solid 4-inch wide traffic stripe tape of the same color as the stripe it replaces, traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet. Where removal of the 4-inch wide traffic stripe will not be required, painted traffic stripe may be used.

Temporary removable construction grade striping and pavement marking tape shall be as listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. Temporary removable construction grade striping and pavement marking tape when used shall be applied in conformance with the manufacturer's recommendations.

The lateral offset for traffic cones, portable delineators or channelizers used for temporary edgeline delineation shall be determined by the Engineer. If traffic cones or portable delineators are used as temporary pavement delineation for edgelines, the Contractor shall provide personnel to remain at the project site to maintain the cones or delineators during hours of the day that the cones or delineators are in use.

Channelizers used for temporary edgeline delineation shall be the surface mounted type and shall be orange in color. Channelizer bases shall be cemented to the pavement in the same manner provided for cementing pavement markers to pavement in "Pavement Markers" of these special provisions, except epoxy adhesive shall not be used to place channelizers on the top layer of pavement. Channelizers shall be, at the Contractor's option, one of the surface mount types (36 inch) listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Temporary edgeline delineation shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

Full compensation for furnishing, placing, maintaining, and removing temporary edgeline delineation shall be considered as included in the contract prices paid for the items of work that obliterated the edgeline pavement delineation and no separate payment will be made therefor. The quantity of channelizers used as temporary edgeline delineation will not be included in the quantity of channelizer (surface mounted) to be paid for.



# HIGHWAY PLANTING COST BREAK-DOWN

Contract No. 03-1C12U4

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
ROADSIDE CLEARING	LS	LUMP SUM		
PREPARE HOLE (SOIL AMENDMENT)	EA	112		
CULTIVATE (SOIL AMENDMENT)	CY	191		
MULCH	CY	2,463		
COMMERCIAL FERTILIZER (PACKET)	EA	1,030		
PLANT GROUP A	EA	694		
PLANT GROUP B	EA	112		

CONTRACT NO. 03-1C12U4  
REVISED PER ADDENDUM NO. 5 DATED JUNE 1, 2011



# IRRIGATION SYSTEM COST BREAK-DOWN

Contract No. 03-1C12U4

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
CHECK AND TEST EXISTING IRRIGATION FACILITIES	LS	LUMP SUM		
REMOVE AND RELOCATE EXISTING IRRIGATION FACILITIES	LS	LUMP SUM		
CONTROL AND NEUTRAL CONDUCTORS	LS	LUMP SUM		
1" ELECTRIC REMOTE CONTROL VALVE	EA	3		
2" ELECTRIC REMOTE CONTROL VALVE	EA	9		
1" BATTERY OPERATED CONTROL VALVE	EA	2		
1" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	3,145		
1 ¼" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	1,383		
1 ½" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	697		
2" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	703		
2 ½" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	250		
3" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	219		
4" PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	800		
SPRINKLER (TYPE A-6)	EA	21		
SPRINKLER (TYPE B-2)	EA	73		
SPRINKLER (TYPE C-2)	EA	112		
3" GATE VALVE	EA	1		
4" GATE VALVE	EA	1		
1" BALL VALVE	EA	3		
2" BALL VALVE	EA	4		

TOTAL \_\_\_\_\_

CONTRACT NO. 03-1C12U4  
REVISED PER ADDENDUM NO. 5 DATED JUNE 1, 2011

## **SECTION 13 RAILROAD RELATIONS AND INSURANCE**

### **13-1.01 GENERAL**

The contractor's attention is directed to the tracks and right of way of the Sacramento Regional Transit District (RT) and Union Pacific Railroad (UPRR) hereinafter referred to as "Railroad" at the following locations; the Brighton Overhead at 03-SAC-50-PM-2.88, the Mayhew Overhead at 03-SAC-50-PM-6.42 and the West Citrus Overhead at 03-SAC-50-PM-11.93 in Sacramento County.

In accordance with the provisions in Section 7-1.12, "Indemnification and Insurance," of the Standard Specifications, the Contractor shall be responsible for all damages to Railroad tracks and appurtenances thereto and to Railroad equipment operating on such track, resulting from his operations.

Contractor shall not allow any personnel or equipment on Railroad right of way. No work will be permitted near track level or directly over tracks. Contractor shall not pile or store any materials, nor park any equipment closer than 25'-0" to the centerline of the nearest track.

Contractor shall perform work so as not to endanger or interfere with the safe operation of the tracks and property of Railroad and traffic moving on such tracks, as well as wires, signals and other property of Railroad, its tenants or licensees, at or in the vicinity of the work.

Contractor shall take protective measures to keep railroad facilities, including track ballast, free of sand or debris resulting from his operations. Damage to railroad facilities resulting from Contractor's operations will be repaired or replaced by Railroad and the cost of such repairs or replacement shall be deducted from the Contractor's progress and final pay estimates.

# BID ITEM LIST

03-1C12U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
2	070013	SMALL BUSINESS UTILIZATION REPORT	EA	5	250.00	1,250.00
3	070018	TIME-RELATED OVERHEAD	WDAY	200		
4	071325	TEMPORARY FENCE (TYPE ESA)	LF	840		
5	074016	CONSTRUCTION SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
6	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
7	074028	TEMPORARY FIBER ROLL	LF	21,000		
8	074029	TEMPORARY SILT FENCE	LF	2,110		
9	074031	TEMPORARY GRAVEL BAG BERM	LF	250		
10	074033	TEMPORARY CONSTRUCTION ENTRANCE	EA	2		
11	074034	TEMPORARY COVER	SQYD	5,130		
12	074035	TEMPORARY CHECK DAM	LF	310		
13	074038	TEMPORARY DRAINAGE INLET PROTECTION	EA	6		
14	074040	TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	SQYD	8,000		
15	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
16	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
17	BLANK					
18	BLANK					
19	BLANK					
20	120165	CHANNELIZER (SURFACE MOUNTED)	EA	40		



**BID ITEM LIST**  
**03-1C12U4**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	BLANK					
22	128650	PORTABLE CHANGEABLE MESSAGE SIGN	LS	LUMP SUM	LUMP SUM	
23	129000	TEMPORARY RAILING (TYPE K)	LF	9,240		
24	129100	TEMPORARY CRASH CUSHION MODULE	EA	42		
25	018309	TEMPORARY CRASH CUSHION (ABSORB 350)	EA	10		
26	BLANK					
27	BLANK					
28	150305	OBLITERATE SURFACING	SQYD	330		
29	150608	REMOVE CHAIN LINK FENCE	LF	130		
30	150662	REMOVE METAL BEAM GUARD RAILING	LF	1,590		
31	150668	REMOVE FLARED END SECTION	EA	8		
32	BLANK					
33	BLANK					
34	042537	REMOVE CHIP SEAL CONTRAST TREATMENT	SQFT	30,430		
35	BLANK					
36	150742	REMOVE ROADSIDE SIGN	EA	30		
37	150747	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	5		
38	150771	REMOVE ASPHALT CONCRETE DIKE	LF	1,000		
39	150805	REMOVE CULVERT	LF	220		
40	150820	REMOVE INLET	EA	4		

**BID ITEM LIST**  
**03-1C12U4**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	151572	RECONSTRUCT METAL BEAM GUARD RAILING	LF	310		
42	152320	RESET ROADSIDE SIGN	EA	5		
43	152390	RELOCATE ROADSIDE SIGN	EA	6		
44	152398	RELOCATE SIGN STRUCTURE (BRIDGE-MOUNTED)	EA	1		
45	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	15,700		
46	153215	REMOVE CONCRETE (CURB AND GUTTER)	LF	860		
47	153218	REMOVE CONCRETE SIDEWALK	CY	120		
48	153235	CLEAN BRIDGE DECK	SQFT	35,400		
49	157561	BRIDGE REMOVAL (PORTION), LOCATION A	LS	LUMP SUM	LUMP SUM	
50	BLANK					
51	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
52	190101	ROADWAY EXCAVATION	CY	5,730		
53	190107	ROADWAY EXCAVATION (TYPE Y-1) (AERIALY DEPOSITED LEAD)	CY	1,290		
54	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
55	190111	ADL BURIAL LOCATION REPORT	LS	LUMP SUM	LUMP SUM	
56	190113	ASBESTOS COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
57 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	133		
58 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	87		
59	198001	IMPORTED BORROW	CY	9,910		
60	200001	HIGHWAY PLANTING	LS	LUMP SUM	LUMP SUM	

# BID ITEM LIST

03-1C12U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	203016	EROSION CONTROL (TYPE D)	SQYD	14,600		
62	204099	PLANT ESTABLISHMENT WORK	LS	LUMP SUM	LUMP SUM	
63	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
64	208906	EXTEND 8" CONDUIT	LF	56		
65	260201	CLASS 2 AGGREGATE BASE	CY	8,430		
66	390132	HOT MIX ASPHALT (TYPE A)	TON	8,340		
67	BLANK					
68	391007	PAVING ASPHALT (BINDER, GEOSYNTHETIC PAVEMENT INTERLAYER)	TON	33		
69	393003	GEOSYNTHETIC PAVEMENT INTERLAYER	SQYD	3,860		
70	394060	DATA CORE	LS	LUMP SUM	LUMP SUM	
71	394073	PLACE HOT MIX ASPHALT DIKE (TYPE A)	LF	320		
72	394074	PLACE HOT MIX ASPHALT DIKE (TYPE C)	LF	150		
73	394076	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	1,440		
74	394077	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	2,460		
75	394090	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	SQYD	16		
76	397005	TACK COAT	TON	13		
77	BLANK					
78	BLANK					
79	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	
80 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	14		



# BID ITEM LIST

03-1C12U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	251		
82 (F)	510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	CY	30		
83	510314	CLASS 4 CONCRETE (BACKFILL)	CY	18		
84 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	3.9		
85	511106	DRILL AND BOND DOWEL	LF	27		
86	519088	JOINT SEAL (MR 1")	LF	33		
87	BLANK					
88 (F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	63,612		
89 (F)	540102	TREAT BRIDGE DECK	SQFT	35,400		
90	540108	FURNISH BRIDGE DECK TREATMENT MATERIAL	GAL	391		
91	560248	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	240		
92	560249	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	440		
93	566011	ROADSIDE SIGN - ONE POST	EA	44		
94	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	14		
95	620100	18" ALTERNATIVE PIPE CULVERT	LF	290		
96	650014	18" REINFORCED CONCRETE PIPE	LF	74		
97	BLANK					
98	665018	18" CORRUGATED STEEL PIPE (.109" THICK)	LF	12		
99	665025	24" CORRUGATED STEEL PIPE (.138" THICK)	LF	24		
100	680207	3" PLASTIC PIPE	LF	90		

# BID ITEM LIST

03-1C12U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	698100	18" ALTERNATIVE PIPE DOWNDRAIN	LF	36		
102	705015	24" STEEL FLARED END SECTION	EA	1		
103	705204	18" CONCRETE FLARED END SECTION	EA	5		
104	BLANK					
105	BLANK					
106 (F)	721810	SLOPE PAVING (CONCRETE)	CY	5		
107	BLANK					
108	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	100		
109	731519	MINOR CONCRETE (STAMPED CONCRETE)	CY	230		
110 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	978		
111	BLANK					
112	800320	CHAIN LINK FENCE (TYPE CL-4)	LF	150		
113	820107	DELINEATOR (CLASS 1)	EA	80		
114	018310	DELINEATOR (CLASS 1, SURFACE MOUNTED)	EA	26		
115	018311	HIGHWAY POST MARKER	EA	3		
116	820141	OBJECT MARKER (TYPE K-1)	EA	5		
117	820151	OBJECT MARKER (TYPE L-1)	EA	2		
118	832001	METAL BEAM GUARD RAILING	LF	1,840		
119	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	860		
120	839541	TRANSITION RAILING (TYPE WB)	EA	2		

**BID ITEM LIST**  
**03-1C12U4**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	839581	END ANCHOR ASSEMBLY (TYPE SFT)	EA	4		
122	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	3		
123	BLANK					
124 (F)	839720	CONCRETE BARRIER (TYPE 732)	LF	210		
125	BLANK					
126	840504	4" THERMOPLASTIC TRAFFIC STRIPE	LF	15,600		
127	840506	8" THERMOPLASTIC TRAFFIC STRIPE	LF	4,550		
128	BLANK					
129	840515	THERMOPLASTIC PAVEMENT MARKING	SQFT	890		
130	840525	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)	LF	1,090		
131	840526	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)	LF	2,320		
132	BLANK					
133	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	510		
134	860090	MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	LUMP SUM	LUMP SUM	
135	860150	SIGNAL AND LIGHTING (TEMPORARY)	LS	LUMP SUM	LUMP SUM	
136	860401	LIGHTING	LS	LUMP SUM	LUMP SUM	
137	018312	COMMUNICATIONS SYSTEM	LS	LUMP SUM	LUMP SUM	
138	018313	FIBER OPTIC SYSTEM	LS	LUMP SUM	LUMP SUM	
139	861088	MODIFY RAMP METERING SYSTEM	LS	LUMP SUM	LUMP SUM	
140	861100	RAMP METERING SYSTEM	LS	LUMP SUM	LUMP SUM	



**BID ITEM LIST****03-1C12U4**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141	BLANK					
142	861503	MODIFY LIGHTING	LS	LUMP SUM	LUMP SUM	
143	BLANK					
144	074042	TEMPORARY CONCRETE WASHOUT (PORTABLE)	LS	LUMP SUM	LUMP SUM	
145	BLANK					
146	074056	RAIN EVENT ACTION PLAN	EA	75	500.00	37,500.00
147	074057	STORM WATER ANNUAL REPORT	EA	4	2,000.00	8,000.00
148	074058	STORM WATER SAMPLING AND ANALYSIS DAY	EA	28		
149	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

**TOTAL BID:**

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